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ABSTRACT

The paper reviews research on the development of communication in visually and mentally handicapped persons. Communication difficulties are traced from the preverbal stage, through imitation and turn-taking, visual co-orientation and objects, and the effects of visual loss on early development. The added impact on a mentally handicapped person of a visual handicap is assessed. The importance of features in the physical environment (such as sound sources and echoes) for communication development are noted. Additional behavior problems of persons with visual and mental handicaps are described; these include self-injury and stereotyped behavior. (CL)

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COMMUNICATION DIFFICULTIES AND VISUALLY HANDICAPPED PEOPLE

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Preverbal Communication

Language was once assumed to 'arrive' eighteen months or so after birth. During the last ten years or so, however, evidence has been accumulating of the central importance of pre-verbal communication patterns established between child and parent during the first year of life, as part of a social interactive process (Schaffer 1977). The infant can now be seen as behaving in a relatively organised way rather than subject to the primitive chaos which was once assumed to reign. The mother takes part in this social development by fitting her behaviour into the existing patterns of activity displayed by the infant.

During the first year of life the infant learns that his interactions with another person are two-way affairs. The dialogue between them involves reciprocity including skills like waiting, listening, watching, copying and replying, and intentionality or the realisation by the child that his behaviour can be used to influence the behaviour of people and objects around him, with desired results. In other words the child acts in order to bring about particular goals or ends. In this sense crying may be simply a response to pain but it could also be a means of bringing mother to him to deal with the cause of the problem. In the latter case crying has a clear communication role.

The infant will learn by experience that his smiles, nods, vocal noises, gestures and movements are responded to by others and can bring particular effects. Schaffer (1977) suggests that the remaining important ingredient, in addition to the child's developing abilities to interact, is opportunity or the regular presence of another person to interact with, and this is usually provided by the mother. A broadly similar formulation of the preverbal communication process is offered by Newson (1978), who offers three guidelines:

> 1) each participant must have a repertoire of distinguishable actions which can function as 'signals'.
>
> 2) each individual must be sensitive to the display of such signals by the other individual, and be prepared to give up his/her own activity in order to

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attend to that being displayed by the other.

3) participants in the communication must develop an understanding of the need to sequence and interrelate their activities to allow a pattern of exchange to take place between them.

The interested reader can explore the detailed discussions of preverbal communication characteristics in texts such as Schaffer (1977) and Lock (1978). For present purposes, however it is useful to summarise the discussions of two or three aspects offered by contributors to the field in order to indicate the central relevance of vision to the early communication process.

Imitation and Turn-Taking

Pawlby (1977) has described how, from an early age, mothers and infants co-ordinate their interactions and adjust their behaviour in response to the behaviour of the other partner. There is a pattern of alternation between the partners while interacting, which has been described as a kind of 'conversation'. Each action in this turn-taking routine might be understood best as a kind of communication gesture. Imitation is one form of this 'communication' routine where one partner reproduces the act just displayed by the other partner. Some of the activities noted by Pawlby as examples of imitation between parents and children are listed below. Those marked by an asterisk include the use of vision.

* smiles
  blowing 'raspberries'
* mouth movements (purses lips)
  laughing
* tongue-poking
* frowns
  voice pitch/tone
  sighs
* eyebrow movements
  tongue-clicking
* eye pointing/staring
* arm/leg movements
* 'peep-bo'
  coughs
* claps, bangs (with hand)
* hand games
* 'giving' object
* uncovering objects
  smacking lips
* head shaking
* nodding
* waves

Turn-taking is an essential part of imitation as one partner copies the action of the other; but it ofen occurs through a longer sequence of turns or 'replies' between partners. In the early months of a child's development a mother is most likely to follow the action of her child, but as the child grows older the frequency of imitations he/she makes of the parents' actions increases. Imitation seems to be a means of building a shared understanding of actions and events between mother and child. If so it suggests that meaning is socially constructed at a very early age, well before speech appears. Mothers appear to initiate imitation routines almost from the time of birth by copying certain movements and gestures made by the child. In particular though, studies suggest that mothers tend to select

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gestures which have some value in communication.

Visual Co-orientation and Objects

After a few months of life objects tend to compete more and more with people for an infant's attention. To engage in social contact with a child an adult must take notice of, and use, an infant's interest in objects. One study (Collis and Schaffer 1975) showed that mother and infant eye-gaze was usually directed to the same object or toy at the same time, mainly because the mother followed her baby's direction of gaze (rather than vice versa). Mothers would then often go on to name the object and comment upon it. Mothers tend, also to interpret the actions and interests of their children towards objects by eg, referring to, and requesting or providing extra information about the object in focus.

Infants may also follow the gaze direction of adults. One estimate suggested that this ability may emerge reliably at around nine months. Using this skill the infant can benefit by relating mother's verbal comments about an object, to the object at which she is looking.

Visual Loss and Early Development

Blindness produces a number of delays in the development of basic skills during the early infant period, including mobility and visually guided reaching; meanwhile reaching for objects on sound cue emerges at roughly the same age for blind or sighted infants (eight to nine months) (Unwin 1977) by which time many of the blindness-related delays have already made their appearance. The sighted infant can initiate social interactions with parents simply by looking at them. Mother or father tend to mould and shape their own movements in response to those of the infant. They will give meaning to many infant movements and gestures by the ways they respond to them, providing verbal labels, copying certain movements or showing pleasure. Much of this feedback from parents is received visually by the infant.

Blindness in a young child serves to deprive the parents of many of the rewards normally provided by a sighted child's activities. The blind baby does not return their eye-gaze, does not smile readily without encouragement and does not engage in the various forms of exploration or visual searching which, in a sighted child provide parents with opportunities to join in and help create and maintain the activity.

The socially derived patterns of preverbal communication which are built up between adult and infant during the first year or so of life depend in large part on the development of reciprocal recognition of objects and activities. Consequently, this development depends to a large degree on visual skills in both participants.

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While reciprocity of experience and meaning can be developed without sight, it must be worked for consciously under such circumstances, by making careful use of non-visual cues through sound, touch, taste and smell. The implication to be drawn here is the need to provide help and guidance to parents in how to make use of non-visual cues in place of the preferred visual ones.

Sally Rogow (1980) notes the need to establish an alternative signalling system for the blind child, using words, sounds and motor actions to convey meaning. Teaching a blind child that holding out his/her arms will get him/her picked up by his parent, will give the child access to social contact and the parent a sign about the child's needs that he/she can interpret reliably. Rogow describes a 'routine of 'co-active intervention' by which such communication can be set up. It requires:

1) a system of consistent and clearly defined responses to the child's behaviour,

2) a system of signals based on the interests of the child,

3) use of a variety of objects and experiences to establish the child's interests,

4) stress on mutual actions and reciprocal interchanges, and

5) enjoyment of the child's response to the adult.

It is often easier to encourage the child to make a signal and obtain an enjoyable response from the adult, than to expect the child to learn and respond to signals from the adult. Clearly defined gestures such as hand-clapping, or gestures based on actions used with objects serve well as signals. The involvement of objects in the parent/child interaction is vital to give meaning to the words which will be used to identify them, first by the parent and more importantly, later by the child. Blind children find it easy to imitate words they hear around them (a source of experience which does not depend on vision) but their use of such words will be meaningless unless they experience directly the objects and activities to which the words refer. Echolalia is a not uncommon consequence of passive listening to speech by blind children.

The consequences of inappropriate early communication and social experiences in blind infants is all too obvious in the developmental norms published by Joan Reynell (1978). These suggest that the verbal comprehension of blind children is delayed by six to eight months at two years old compared to sighted children, and is beginning to slow by comparison with that of partially sighted children at this age. By age five blind children show a delay in verbal comprehension of one year or more. Expressive language skills are also subject to delay in

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blind children. Interestingly however, blind children perform better than their partially sighted counterparts during the 'jargon' stage (around one to two years old) but fall behind again when words begin to be used as true object labels. Sighted children have a six to eight month advantage over blind children from age one onwards in terms of expressive language structure while the gap is even larger (eighteen months ahead) in terms of language content.

Mental Handicap

The limitations on language development among mentally handicapped people is well known and does not need to be elaborated here. The presence of a visual handicap increases the developmental problem considerably. If a child has both impairments he/she will need very special help if delays in language development are to be minimised. The major risk, however, must be that the language delay will be assumed to be inevitable if the child is thought to be mentally handicapped, and that less effort will be made to ameliorate the delay. The risk can be compounded by shortcomings in many current methods of assessing visual function in young children (viz Atkinson and Braddick 1979), and intellectual level in blind people (viz Ellis 1978; Langley 1979). The numbers of specialist assessors able to carry out such evaluations appear to be relatively limited. Additional problems may be likely to arise for clients who suffer some degree of mental retardation if ophthalmic specialists assume that such clients will be unable to cope with corrective surgery or with visual aids such as spectacles. Consider, for example the results of a study by Bader and Woodruff (1980) of the effects of corrective lenses on the behaviour of a group of mentally retarded people. They report improvements in social behaviour, gross and fine motor skills, and reading and writing skills. These changes were most evident in the youngest (nought to six years) age group.

Of particular concern in relation to such problems is the remarkably large proportion of mentally handicapped people in the UK who are known to suffer some degree of visual impairment. Ellis (1982) reported results of a national survey of visual and mental handicaps in our institutionalised population which suggested that about ten per cent of institutional residents were either blind or partially sighted. The reader might be tempted to assume that visually handicapped people are more likely to drift into institutions, but a survey of children in ESN(S) schools in the Manchester community (Mittler and Preddy 1981) revealed that about fifteen per cent had some degree of visual handicap. These prevalence rates are ten times larger than the prevalence of visual handicap in the general population (viz Cullinan 1977). The national survey of institutional residents also found that the proportion of blind children up to sixteen years old was about three times larger than sighted children.

Blind residents were found to be generally more dependent

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than their partially sighted contemporaries in self-care skills like washing, feeding, dressing and toileting, while only about one third of blind inmates could speak adequately. In addition, over forty per cent of blind residents had no form of occupation or training at all. These findings raise the question, to what extent such dependency is due to visual impairment rather than to mental handicap? It has been argued elsewhere (Ellis 1983) that such problems and needs can be met adequately only by the establishment of more specialised living and training units in institutions and by the recruitment of appropriate training of specialist staff.

Physical Environment and Communication

Specialisation of living resources for visually handicapped people requires attention to a number of physical features. These have been described by Best (1983) and have considerable relevance to many communication-related needs of visually and mentally handicapped people. In this context 'communication' is used in the broadest sense, to include non-human sources of information available to the blind resident.

Sound sources are an important source of information for the visually handicapped person. The spoken word is eagerly awaited even by blind people who cannot speak themselves. Staff and other sighted residents can convey information in this way to a blind person that cannot be accessed by any other means. 'What time is it?', 'What is happening outside via the window?', 'Where are we going?', 'Who is this new person?' Sounds can be non-human also and convey information about the approach of others (footsteps) about sources of danger (car engines; the whine of an electric wheelchair) and, perhaps less obviously about the size of the room. But many factors impair the supply of this information. Most wards in mental handicap hospitals these days are equipped with 'hi-fis' or a television, and frequently these are turned on quite loud. This blanket of sound is less useful to the blind resident than the more subtle sound cues it covers up.

Echoes can be both a source of information and a cause of interruption for the blind person. They may indicate the presence of a wall nearby; but a continuous rattle of voices and equipment while walking down a long hospital corridor can prevent the direction of particular sounds from being located by a blind person.

Fixed sources of sound in a living area can help a blind person to find his way across the room. These can include a ticking clock, or a (not too loud) radio. By and large, however, many of these details are disregarded in the living units of institutions where visually and mentally handicapped people reside. In larger institutions these residents are usually distributed a few per ward or villa and consequently their particular needs in terms of sound sources and individual verbal

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contact with staff are difficult, if not impossible to meet.

Behaviour Problems of the Visually and Mentally Handicapped

The national survey also collected details of various behaviour problems found among blind and partially sighted residents. The most common one among blind residents was various forms of stereotyped behaviour such as rocking to and fro. Various research has indicated that stereotypes are likely to arise from inactivity or boredom. It was interesting to note, therefore that forty-one per cent of blind residents had no form of regular occupation. Of even greater interest, in connection with communication skills, however, was the second most common behaviour problem, self-injury, which was reported in twenty-one per cent of blind residents. Self-injury includes various activities such as head-banging, or eye-poking.

Many attempts have been made to construct an explanation of self-injury in mentally handicapped people including a recent proposal (Cataldo and Harris 1982) that a combined bio-behavioural account should be sought in view of growing evidence for both biochemical and behavioural components in its occurrence. What is of particular relevance to the present topic is the possibility, suggested by some parts of the national survey data, that most self-injurers are also unable to speak. This finding will not be discussed here in detail as further analysis of the data is still required. There is the possibility, however, that interpretation of self-injury as an, albeit inadequate, form of communication could offer a practical means of approaching the problem by improving social contact and access to communication-oriented activities for blind mentally handicapped people.

Conclusions

Communication is of critical importance for visually and mentally handicapped people in way which are not readily apparent. Several concluding comments can be made to draw attention to areas of need which are open to the right sort of practical intervention. Firstly, assessment of optical, ophthalmological and mental development of young children, using some of the newly developed objective methods now becoming available, should be applied as early as possible and praticularly where any developmental delay is suspected. This could help to ensure that appropriate remedial steps are taken to limit the effects of the delay. Secondly, in view of clear evidence that visual handicap is ten times more common in the mentally handicapped population, specialised resources should be developed to serve the living and training needs of these people. Long-stay institutions need to establish less hostile living arrangements and more constructive training opportunities for their visually handicapped residents, while the newly developing community mental handicap services should bear in mind that a

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significant proportion of mentally handicapped people will have visual handicaps and will require appropriately specialised opportunities. Thirdly, staff who work with visually and mentally handicapped people should be given the special training which will lead them to 'think' non-visually, and to encourage their clients to develop independence skills such as mobility, language and self-care, which may at first appear to be beyond their limited capabilities. If these sorts of priorities can be met, most of the communication problems faced by visually and mentally handicapped people will be resolved.

References

Atkinson, J and Braddick, O 1979. New Techniques for Assessing Vision in Infants and Young Children. Child: Care, Health and Development 5, pp 389-398

Bader, D and Woodruff, M E 1980. The Effects of Corrective Lenses on Various Behaviours of Mentally Retarded Persons. Amer J Optom and Physio Optics 57, (7), pp 447-459

Best, A B 1983. Buildings and Furnishings for Mentally and Visually Handicapped People. In: Ellis 1983 (ed) Directory of Services for Visually and Mentally Handicapped People, Inter-Regional Review, Supplement No 1

Cataldo, M F and Harris, J 1982. The Biological Basis for Self-Injury in the Mentally Retarded. Analysis and Intervention in Developmental Disabilities 2, pp 21-39

Collis, G M and Schaffer, H R 1975. Synchronisation of Visual Attention in Mother-Infant Pairs. J Child Psychol Psychiat 16, fpp 315-320

Cullinan, T R 1977. The Epidemiology of Visual Disability: Studies of Visually Disabled People in the Community. HRSU Report No 28 Canterbury: University of Kent

Ellis, D 1978. Methods of Assessment for Use with the Visually and Mentally Handicapped: A Selective Review. Child: Care, Health and Development 4, pp 397-410

Ellis, D 1982. Visually and Mentally Handicapped People in Institutions: Part I: Their Numbers and Needs. Mental Handicap 10, (4), pp 135-137

Ellis, D 1983. Visually and Mentally Handicapped People in Institutions: Part II: Segregation or Specialisation? Mental Handicap 11, (1), pp 8 et seq

Langley M B 1978-79. Psycho-Educational Assessment of the Multiply Handicapped Blind Child: Issues and Methods. Education of the Visually Handicapped pp 97-115

BEST COPY AVAILABLE

Lock, C 1978. Action, Gesture and Symbol: The Emergence of Language London: Academic Press

Mittler, P and Preddy, D 1981. Mentally Handicapped Pupils and School-Leavers: A Survey in North West England. Ch 3 in: Cooper, B (ed) Assessing the Handicaps and Needs of Mentally Retarded Children London: Academic Press

Newson, J 1978. Dialogue and Development. Ch 3 in: Lock, C (ed) Action, Gesture and Symbol: The Emergence of Language London: Academic Press

Pawlby, S 1977. Imitative Interaction. Ch 9 in: Schaffer, H R (ed) Studies in Mother-Infant Interaction Academic Press

Raynell, J 1978. Developmental Patterns of Visually Handicapped Children. Child: Care, Health and Development 4, pp 291-303

Rogow, S 1980. Language Development in Blind Multihandicapped Children: A Model of Co-Active Intervention. Child: Care, Health and Development 6, pp 301-308

Schaffer, H R 1977. Early Interactive Development. Ch 1 in: Schaffer, H R (ed) Studies in Mother-Infant Interaction Academic Press

Urwin, C 1977. The Development of Communication Between Blind Infants and Their Parents. Ch 5 in: Schaffer, H R (ed) Studies in Mother-Infant Interaction Academic Press